An overview of the ICT market, technologies, and policies that drive innovation and investment
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ICT COMPANIES ACCOUNTED for 3.5 million jobs, with average compensation for ICT workers more than 80 percent higher than for the workforce overall.

ICT FIRMS CONTRIBUTE about $1 trillion to the U.S. GDP through both direct and indirect contributions — about 7 percent of the U.S. economy.

ICT’S DIRECT CONTRIBUTIONS to GDP have increased nearly 25 percent since the 1990s, growing from 3.4 percent per year in 1991–1993 to an average of 4.2 percent per year in 2005–2009 — gains unmatched by any other industry.

THE USE OF ICT INCREASES THE PRODUCTIVITY OF THE BROADER U.S. ECONOMY. Firms that use ICT effectively grow faster, invest more, and are more productive and profitable. According to the World Bank, businesses that use ICT effectively have 3.4 percent higher sales growth and 5.1 percent more profitability than businesses that do not.
DRIVE INVESTMENT THROUGH:
- Internet Ecosystem [4]
- Broadband [5]
- Spectrum Availability [8]

ACCELERATE GLOBAL COMPETITIVENESS THROUGH:
- Market Access and Trade [9]
- Standards and Intellectual Property Rights [12]
- Device Approval [13]
- Accessibility [14]
- Public Safety Communications [15]
- Health ICT [16]

ENABLE FORWARD-LOOKING TECHNOLOGIES WITH:
- Tax Reform [17]
- Research and Development [18]
- Global Cybersecurity [20]
- Green ICT and Smart Grid [21]
- Intelligent Transportation Systems [22]
GOVERNMENT SHOULD ENSURE UNIFORMITY as Congress considers a Communications Act legislative re-write, including:

- **ENDING TECHNOLOGY SILOS** for services to reflect the reality of intermodal competition;
- **PROMOTING COMPETITION** with rules that encourage competition among existing and emerging platforms and providers;
- **TECHNOLOGY NEUTRALITY**, with rules focused on the services performed, not the tools used to do so; and
- **EXCLUSIVE FEDERAL JURISDICTION** for IP-services.

CONSUMERS’ ABILITY TO CONNECT to and access content and services over the Internet should be preserved:

- **NET NEUTRALITY PRINCIPLES** adopted by the FCC a decade ago have proven effective;
- **LIGHT TOUCH REGULATION** has fostered innovation, broadband deployment, competition, and investment; and
- **HEAVY HANDED UTILITY STYLE REGULATION** of broadband service providers is not necessary and stifles innovation.
THE IP TRANSITION IS ONGOING. TIA calls on the Administration, Congress, and other government bodies to adopt a framework for next-generation broadband that supports the following:

▶ **UNIVERSALLY AVAILABLE**, high-quality, and affordable broadband connectivity for rural and hard-to-serve places, using public universal service funding where necessary.

▶ **ENCOURAGING INVESTMENT** in network infrastructure, allowing the market to reflect consumer choice, and accelerating broadband user access speeds.

▶ **LIGHT-TOUCH, MARKET-BASED REGULATIONS** as well as certainty in the marketplace will ensure continued investment in a technology-neutral manner.

▶ **TECHNOLOGY MANDATES** by the government hamstring innovation and increase consumer costs.

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**VoIP Share of Residential and Business Telephone Lines in the U.S. (Millions)**

Source: TIA’s 2015-2018 ICT Market Review and Forecast
Broadband Penetration of the Population, 2014 (Percent)

Source: TIA’s 2015-2018 ICT Market Review and Forecast

- Switzerland
- Denmark
- Netherlands
- South Korea
- France
- Iceland
- Belgium
- United Kingdom
- Norway
- Germany
- Canada
- Luxembourg
- Malta
- Finland
- Sweden
- Hong Kong
- **UNITED STATES**
- New Zealand
- Belarus
- Japan

**THE U.S. CONTINUES TO LAG BEHIND OTHER DEVELOPED NATIONS** in broadband penetration.

- **ALTHOUGH PENETRATION ROSE TO 30.73 PERCENT IN 2014**, topping 30 percent for the first time, its 17th ranking remained the same as in 2013.

- **THE U.S. MUST NOT BE OUTPACED** by major trading partners in deployment of cutting-edge technologies and networks.

- **LACK OF BROADBAND CONNECTIVITY** inhibits job creation in the U.S.
Cable is the principal fixed broadband access platform but fiber-to-the-home is rapidly catching up. By 2018 there will be nearly as many FTTH subscribers as cable modem subscribers.

**THROUGH ECONOMIC AND REGULATORY INCENTIVES** for network deployments and upgrades, the U.S. Government can stimulate investment in next-generation broadband infrastructure.

- **THE U.S. MUST ENACT PERMANENT TAX INCENTIVES FOR INNOVATION**, which will allow companies to make long-term research plans while being assured that the incentives will continue for the life of the project.

- **TAX POLICIES SHOULD BE IMPLEMENTED THAT WILL DRIVE INVESTMENT IN BROADBAND** through tiered tax incentives that accelerate as the speed offered by such service increases, recognizing differing tiers and floors depending on the technology deployed.

- **THE U.S. MUST CONNECT STUDENTS AND LIBRARY USERS** to the benefits of more robust broadband by increasing technological flexibility for E-rate program participants, coupled with greater incentives for efficient and economical investment decisions.

**Access Infrastructure Equipment Spending in the U.S. by Category ($ Billions)**

Source: TIA’s 2015-2018 ICT Market Review and Forecast

Cable is the principal fixed broadband access platform but fiber-to-the-home is rapidly catching up. By 2018 there will be nearly as many FTTH subscribers as cable modem subscribers.
GOVERNMENT SHOULD ADOPT FORWARD-LOOKING, market-oriented spectrum policies, including further reallocations of federal spectrum for mobile broadband services, flexible regulations, and improved spectrum management.

- BUDGETARY INCENTIVES AND A LONG-TERM PLAN that supports predictability and a stable regulatory environment for commercial and government uses will encourage more efficient use of spectrum.

- SPECTRUM ALLOCATION AND ASSIGNMENT decisions should be made by market-driven, open, and transparent processes involving government/industry consultation.

- THE VOLUNTARY INCENTIVE AUCTION should maximize the amount of spectrum available for licensed mobile services, and the FCC should continue its efforts to attract the greatest possible number of broadcast participants.
MARKET ACCESS AND TRADE — Securing access to international markets can be achieved by promoting trade liberalization and policies that are market-based and technology-neutral.

- **ENHANCING TRADE LIBERALIZATION AND EXPANDING TRADE** can be achieved in 2015 by prioritizing the conclusion or advancement of ongoing trade negotiations and Congressional renewal of Trade Promotion Authority. Bilateral mutual recognition agreements (MRAs) for testing and certification of telecom equipment will help improve the regulatory environment.

- **IMPROVING MARKET ACCESS** can be accomplished through trade agreements that recognize the inherently global nature of digital trade and ICT supply chains; ensure technology neutrality; and permit full, fair, and open competition.

- **AVOIDING PROTECTIONISM AND LOCALIZATION BARRIERS TO TRADE** should be a focus of all governments by honoring existing World Trade Organization commitments and regional or bilateral trade commitments.

- **ENSURING THE FREE FLOW OF DATA** can be realized by encouraging interoperable regulatory systems that do not unnecessarily impede cross-border data flows and by preserving the multi-stakeholder approach to Internet governance.

FTA Shares of U.S. Telecommunications Equipment Trade, 2013 (Percent)

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Exports</td>
<td>39.1</td>
</tr>
<tr>
<td>Imports</td>
<td>12.5</td>
</tr>
<tr>
<td>Total</td>
<td>24.3</td>
</tr>
</tbody>
</table>

Source: TIA’s 2015-2018 ICT Market Review and Forecast
IN 2013, TRADE AGREEMENTS HELPED EXPORTS of U.S. telecommunications equipment, accounting for 39.1 percent of exports while comprising only 12.5 percent of non-U.S. gross domestic product.

- **IN 2013, LATIN AMERICA WAS THE LARGEST MARKET** for U.S. equipment exports, followed by Asia Pacific and Europe.

- **IN 2013, THE TOP 10 EXPORT DESTINATIONS COMPRISSED 55.5 PERCENT** of all U.S. telecommunications equipment exports, accounting for $10.5 billion in telecommunications equipment purchases from the United States.

- **MEXICO WAS THE LEADING DESTINATION** for the export of American telecommunications equipment in 2013, accounting for $2.7 billion, up 10 percent from 2011.
The global market will grow at an estimated 4.6 percent compound annual rate to $4.9 trillion by 2018.

The two largest regional telecommunications markets in 2014 were the Asia Pacific at $1.8 trillion and Europe at $1.2 trillion. The Middle East/Africa will be the fastest-growing region, with a projected 7.6 percent compound annual increase through 2018.

The two largest wireless markets in 2014 were China with 1.3 billion subscribers and India with 910 million subscribers, projected to reach 1.55 and 1.24 billion, respectively, by 2018.
RELIANCE ON THE VOLUNTARY, OPEN, AND CONSENSUS-BASED STANDARDS PROCESS, which includes the protection of intellectual property rights (IPR), is key to enhancing the global competitiveness of the ICT industry.

- **VOLUNTARY, CONSENSUS-BASED STANDARDS ARE A CRITICAL ELEMENT FOR INNOVATION** and the continued commercial success of the ICT sector, which should be supported by all governments.

- **OPEN STANDARDS** are developed and maintained using consensus-based and transparent processes and are available to the public at a reasonable cost (either for a reasonable fee or for free). Open standards should not be subject to mandated licensing without compensation.

- **INTERNATIONAL STANDARDS** are any standards developed through an open, transparent process and are widely implemented on a global basis.

700 organizations have developed a total of 93,000 standards between the federal government and private sector.

Source: NIST Special Publication 806, Standards Activities of Organizations in the United States
The FCC now processes 16,000 equipment authorizations a year, an increase of 400% over the last decade.


▶ INCREASING CERTAINTY AND EFFICIENCIES IN DEVICE APPROVAL PROCESSES must be a continuous exercise that includes proactive and open dialogue with affected stakeholders.

▶ POLICYMAKERS SHOULD UTILIZE ADVANCED APPROACHES TO THE REGULATION OF ICT, such as the allowance of electronic labeling, reduced import restrictions, and the use of a self-declaring certification regime.

▶ GOVERNMENT SHOULD RELY ON INTERNATIONAL STANDARDS AND STRIVE FOR GLOBAL HARMONIZATION OF TECHNICAL REQUIREMENTS based on these standards, to ensure that technical compliance will maximize the widespread international availability of ICT equipment at competitive prices.
INCREASING ACCESSIBILITY TO ICT PRODUCTS AND SERVICES IS A PRIORITY FOR ICT MANUFACTURERS, accomplished through pro-competitive policies, proactive outreach to the disability community, and the use of voluntary, consensus-based standards.

- **GOVERNMENT SHOULD ADOPT PRO-COMPETITIVE ACCESSIBILITY POLICIES** that encourage marketplace solutions and rapid deployment of accessible technologies while incorporating technical feasibility.

- **PROACTIVE CONSULTATIONS WITH THE DISABILITY COMMUNITY** and other stakeholders will lead to the incorporation of accessibility solutions into the product development process.

- **GOVERNMENT SHOULD PROMOTE THE DEVELOPMENT OF VOLUNTARY, CONSENSUS-BASED INDUSTRY STANDARDS** to address accessibility needs, repeating successes such as the TIA-1083 voluntary standard, which reduces magnetic interference on digital cordless phones for users with hearing aids.

Source: International Telecommunication Union (ITU), *The ICT Opportunity for a Disability-Inclusive Development Framework* (September 2013)

15 percent of the world’s population lives with a disability. This represents about 1 billion people globally.
The National Public Safety Network:
Nearly 100,000 new jobs created

Source: The Contributions of Information and Communication Technologies To American Growth, Productivity, Jobs and Prosperity (2011)

A NATIONWIDE INTEROPERABLE PUBLIC SAFETY BROADBAND NETWORK will give emergency responders access to new real-time video and data applications that are not currently available.

- **TIA STRONGLY SUPPORTS** the establishment of, and investment in, a nationwide interoperable public safety broadband network (NPSBN).

- **PUBLIC INVESTMENT SHOULD REJECT** top-down command and control methods that impede the access of public safety users to the most appropriate technologies for their specific needs. Continued engagement with the full range of public safety stakeholders is essential.
HEALTHCARE SYSTEMS SHOULD FULLY LEVERAGE THE BROAD ARRAY OF SOLUTIONS AVAILABLE IN THE HEALTH ICT ECOSYSTEM, including devices, systems, software applications, and other technologies that store, share, and analyze health information.

- **GOVERNMENT POLICIES MUST PROMOTE THE ROLE OF ICTs IN ADVANCING HEALTHCARE**, particularly the harnessing of patient-generated health data from remote monitoring devices and services that improve the quality of care for Americans while reducing costs for patients.

- **GOVERNMENT MUST UTILIZE ALL OPPORTUNITIES TO ENSURE** affordable and reliable access to advanced ICT-enabled services.

- **GOVERNMENT POLICIES MUST PROMOTE A REGULATORY FRAMEWORK FOR HEALTHCARE** that provides predictability, facilitates investment, and reduces barriers to innovation.

- **GOVERNMENT POLICIES MUST SUPPORT THE ADOPTION OF INTEROPERABLE ELECTRONIC HEALTH RECORDS** (EHRs) and the use of open, voluntary, and consensus-based industry standards for interoperability between medical devices, EHR technologies, and health information exchange systems.

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**Health IT Spending in the U.S. ($ Billions)**

Source: TIA’s 2015-2018 ICT Market Review and Forecast
Impact of a 10 Percent Reduction in Corporate Tax Burden on ICT Investment and Total Capital Investment, by Industry

<table>
<thead>
<tr>
<th>INDUSTRY</th>
<th>INCREASE IN ICT CAPITAL STOCK ($ MILLIONS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>$9,052</td>
</tr>
<tr>
<td>Transportation &amp; Warehousing</td>
<td>$6,592</td>
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<tr>
<td>Information</td>
<td>$16,200</td>
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<tr>
<td>Finance &amp; Leisure</td>
<td>$6,860</td>
</tr>
<tr>
<td>Professional, Scientific &amp; Tech Services</td>
<td>$9,201</td>
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<tr>
<td>Other</td>
<td>$22,885</td>
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<td><strong>TOTAL</strong></td>
<td><strong>$70,790</strong></td>
</tr>
</tbody>
</table>

Source: The Contributions of Information and Communication Technologies To American Growth, Productivity, Jobs and Prosperity (2011)

**CONGRESS MUST ENACT CORPORATE TAX REFORM** to enhance U.S. competitiveness; U.S. companies are disadvantaged by the U.S. worldwide tax system and corporate tax rate, now the highest in the world.

- **THE CORPORATE TAX RATE MUST BE REDUCED** to a level that will enhance the international competitiveness of U.S. firms.

- **THE U.S. SHOULD MOVE TOWARD A COMPETITIVE TERRITORIAL TAX SYSTEM** for foreign earnings, which will encourage domestic investment and boost our nation’s economy.

- **A ROBUST TAX INCENTIVE FOR INNOVATION** that is permanent, simpler to claim, and supports investments by both large and small businesses must be included in any comprehensive reform.
AGENDA | FORWARD-LOOKING TECHNOLOGIES

Research and Development

STRATEGIC AND ROBUST U.S. INVESTMENT IN TELECOMMUNICATIONS RESEARCH—including a permanent R&D tax credit, multi-year federal research plans, immigration reform, and education in science, technology, engineering, and mathematics (STEM)—will enable the U.S. to remain a technology industry leader.

- **CONGRESS SHOULD RE-AUTHORIZE** the America COMPETES Act in 2015 to increase funding for network- and communications-specific, pre-competitive, basic research.

- **LONG-TERM COMMUNICATIONS RESEARCH FUNDS** should be directed to key areas including spectrum sharing, universal broadband, and interoperable mobility.

- **CONGRESS SHOULD UPDATE** the Networking and Information Technology Research and Development (NITRD) Program statute in 2015 to encompass emerging research areas while ensuring that existing funding is not diverted for non-research purposes.

- **CONGRESS SHOULD ENACT IMMIGRATION REFORM** legislation that increases the H-1B visa cap, enables highly skilled foreign graduates of U.S. universities in STEM fields to receive green cards, and invests in U.S. STEM education.
### Direct Government Funding of Business R&D and Tax Incentives for R&D, 2011 (As a percentage of GDP)

<table>
<thead>
<tr>
<th>Country</th>
<th>Direct Government Funding of BERD*</th>
<th>Indirect Government Support through R&amp;D Tax Incentives</th>
<th>Data on Tax Incentive Support Not Available</th>
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<tr>
<td>Russian Federation</td>
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<tr>
<td>Slovenia</td>
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<td></td>
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<tr>
<td><strong>UNITED STATES</strong></td>
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<tr>
<td>Korea</td>
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<td>South Africa</td>
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<tr>
<td>Italy</td>
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Source: **OECD Directorate for Science, Technology and Industry STI Scoreboard 2013**

*Business Enterprise Expenditures on Research and Development (BERD)
**Global Cybersecurity**

**GOVERNMENT SHOULD WORK WITH INDUSTRY** to secure our nation’s infrastructure and communications networks using policies that promote communications security as a driver of innovation and enhanced trade.

- **NATIONS SHOULD RELY ON INTERNATIONALLY ACCEPTED STANDARDS** and best practices when developing cybersecurity and critical infrastructure protection policies.

- **GOVERNMENT AND INDUSTRY SHOULD LEVERAGE THE PUBLIC-PRIVATE PARTNERSHIP FRAMEWORK** to increase the effectiveness of dialogue between industry and government experts.

- **U.S. CONGRESS SHOULD PASS CYBERSECURITY LEGISLATION** that improves bi-directional information sharing, enhanced cyber R&D, *Federal Information Security Management Act (FISMA)* reform, better public awareness through education, and greater public-private collaboration without adding mandates or increased bureaucracy.

- **CYBERSECURITY POLICIES** should keep markets open and minimize barriers to trade.

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**Spending on Cybersecurity in the U.S. ($ Billions)**

Source: TIA’s 2015-2018 ICT Market Review and Forecast

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<td>27.4</td>
<td>30.5</td>
<td>34.5</td>
<td>40.0</td>
<td>43.5</td>
<td>49.0</td>
<td>54.8</td>
<td>60.4</td>
<td>66.0</td>
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</table>
TIA ENCOURAGES APPROPRIATE FEDERAL-LEVEL POLICIES DRIVING ICT’S POTENTIAL to reduce energy consumption in other more energy-intensive sectors through smart grid, smart buildings, smart devices, and travel substitution. Substitution of ICT for outdated technologies is key to improving energy efficiency, creating jobs, and helping U.S. industry compete successfully in global markets.

› UNLOCK THE FULL POTENTIAL OF THE SMART GRID through support of R&D and deployment, technology-neutral policies, and private and secure access to energy supply and usage data.

› PROMOTE THE ROLE OF ICT in sustainable technologies that reduce energy consumption and greenhouse gas emissions for new and existing buildings.

› SUPPORT VOLUNTARY ICT ENERGY EFFICIENCY STANDARDS that facilitate greater efficiency gains and avoid mandated standards that prevent innovation and competition.

ICT solutions offer the potential to:

- Reduce GHG emissions by 16.5%
- Create 29.5 million jobs
- Yield $1.9 trillion in savings

Source: GeSI SMARTer 2020: The Role of ICT in Driving a Sustainable Future (December 2012)
INTELLIGENT TRANSPORTATION SYSTEMS (ITS) WILL EXPONENTIALLY IMPROVE the efficiency and safety of transportation, and require cautious treatment by policymakers and regulators to ensure that investment and innovation is not discouraged.

- **ITS APPLICATIONS INCLUDE** vehicle-to-vehicle, vehicle-to-infrastructure, autonomous vehicles, and many others and represent a nascent but rapidly-developing area of growth for industry.

- **PRO-INNOVATION AND TECHNOLOGY-NEUTRAL POLICIES** will promote the advancement of ITS and will bring improved efficiency and safety to countless businesses and consumers.

- **VIABLE PUBLIC-PRIVATE PARTNERSHIPS** will make deployment of ITS technologies an appealing investment and ensure sustainability of infrastructure and technological innovation over the long term.

**Spending on Intelligent Transportation Systems in the U.S. ($ Billions)**

Source: TIA’s 2015-2018 ICT Market Review and Forecast
Public Policy Committee (PPC)
CHAIR: Joyce Mullen, Dell
TIA STAFF: Mark Uncapher

Accessibility Working Group (AWG)
CHAIR: Dave Dougall, BlackBerry Limited
TIA STAFF: Avonne Bell

Broadband Convergence Working Group (BCWG)
CHAIR: Gary Bolton, ADTRAN
TIA STAFF: Mark Uncapher

Cybersecurity Working Group (CWG)
CHAIR: Chuck Powers, Motorola Solutions
TIA STAFF: Brian Scarpelli

Energy & Environment Working Group (EEWG)
CHAIR: Mark Sharp, Panasonic
TIA STAFF: Avonne Bell

Health IT Working Group (HITWG)
CO-CHAIRS: Robert Jarrin, Qualcomm
Alice Borelli, Intel
TIA STAFF: David Gray

Intelligent Transportation Systems Working Group (ITSWG)
CHAIR: Harry Lightsey, General Motors
VICE CHAIR: Paul Schumburg, Panasonic
TIA STAFF: Avonne Bell

Public Safety Communications Working Group (PSCWG)
CHAIR: Jeffrey Marks, Alcatel-Lucent
TIA STAFF: Mark Uncapher

Spectrum Policy Working Group (SPWG)
CO-CHAIRS: Mary Brown, Cisco
Jennifer Warren, Lockheed
TIA STAFF: Dileep Srihari

Standards & IPR Policy Committee (SIPC)
CHAIR: Amy Marasco, Microsoft
TIA STAFF: Brian Scarpelli

Communication Research Division (CRD)
CHAIR: Adam Drobot, Open Techworks
VICE CHAIR: Jake MacLeod, Gray Beards Consulting
TIA STAFF: Dileep Srihari

CTO Council
CO-CHAIRS: Jake MacLeod, Gray Beards Consulting
Adam Drobot, Open Techworks
TIA STAFF: Dileep Srihari

Technical Regulatory Policy Committee (TRPC)
CHAIR: Chuck Eger, Motorola Mobility
TIA STAFF: Brian Scarpelli

User Premises Equipment Division (UPED)
CHAIR: Fred Lucas, FAL Associates
TIA STAFF: Brian Scarpelli

Wireless Communication Division (WCD)
Private Radio Section (PRS)
CHAIR: Chuck Powers, Motorola Solutions
TIA STAFF: Mark Uncapher

International Committee (IC)
CHAIR: Jennifer Sanford, Cisco
TIA STAFF: Brian Scarpelli and Dileep Srihari

US-India ICT Dialogue
[No Chair, as this is a function of serving a government-maintained dialogue]

United States Information Technology Office (USITO) in Beijing, China
TIA is a Parent Member with a Board seat itself, and three company seats:
Sean Murphy, Qualcomm
Jeff Moon, Cisco
Richard Brecher, Motorola Solutions
TIA IS ACCREDITED BY THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) to develop voluntary, consensus industry standards for a wide variety of communications products and systems. TIA creates specifications for machine-to-machine communications, cellular towers, wind towers, data centers, network cabling, public safety radio equipment, data terminals, satellites, telephone terminal equipment, accessibility, VoIP equipment, mobile device communications, multimedia multicast, vehicular telematics, and smart utility networks, among others.

▶ MORE THAN 20 YEARS ANSI ACCREDITATION

▶ 12 PRODUCT-ORIENTED ENGINEERING COMMITTEES, consisting of:
  • 80+ subcommittees and working groups;
  • Representatives from manufacturers, service providers, consultants, and end users, including federal, state and local government.

▶ SECRETARIAT to groups that develop international standards, such as Third Generation Partnership Project 2 (3GPP2), oneM2M, and Technical Advisory Groups (TAGs) for forums such as IEC, ISO, and JTC-1.

▶ NEW FOCUS GROUPS AND WORKSHOPS

### ENGINEERING COMMITTEES

- **TR-8**: Mobile and Personal Private Radio Standards
- **TR-14**: Structural Standards for Communication and Small Wind Turbine Support Structures
- **TR-30**: Multi-Media Access, Protocols and Interfaces
- **TR-34**: Satellite Equipment and Systems
- **TR-41**: Performance and Accessibility for Communications Products
- **TR-42**: Telecommunications Cabling Systems
- **TR-45**: Mobile and Point-to-Point Communications Standards
- **TR-47**: Terrestrial Mobile Multimedia Multicast
- **TR-48**: Vehicular Telematics
- **TR-49**: eHealthcare ICT
- **TR-50**: M2M-Smart Device Communications
- **TR-51**: Smart Utility Networks

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- Identify opportunities for the standards process to address technology issues with legislators and government entities.
- Promote government participation in the standards process as experts and end users.
- Provide assistance to trade officials to resolve standards-related and other technical barriers to trade.

SUSTAINABILITY

In cooperation with CompTIA, InfoComm, and the Communications Cable & Connectivity Association, TIA launched the standards development process of the Sustainable Technology Environments Program (STEP). This effort will bring sustainability to the process of planning, designing, integrating and operating technology systems. Technology is part of the solution to the future’s economy, and STEP will play an important role in coordinating and enhancing the benefits that technological innovation brings to the built environment.

For more information go to tiaonline.org/step or contact standards@tiaonline.org.

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